



Nitocote® ET401

Pitch extended epoxy resin coating

Uses

For corrosion resistant coating of concrete or metal surfaces. Sewage works, effluent plant, chemical processing plant.

Advantages

- Good chemical resistance
- Good physical strength
- Easily applied
- Good hold-out on vertical surfaces

Description

Nitocote ET401 is based on solvent-free epoxy resins modified with coal tar pitch. It is supplied as a two pack material in pre-weighed quantities ready for on-site mixing and use.

It is applied to a previously primed dry surface.

Where necessary, a glass fibre reinforcement can be used with a two coat application.

Colour :Black

Technical support

The company provides a technical advisory service supported by a team of specialists in the field.

Properties

Specific gravity	: 1.14
Volume solids	: 100%
Recommended coat thickness	: 250 microns
Theoretical coverage	: 4 m ² / litre
Practical coverage	: See table overleaf
Pot life	: 50 - 60 min at 20°C
Cure time	: The coating becomes tack free after 8 - 10 hrs at 20°C
Time between coats	: 12 to 18 hrs (where required)
Initial hardness	: 24 hours at 20°C
Full cure	: 7 days at 20°C

Below 20°C the curing time will be increased.

Temperature limitation : Minimum application temperature : 5°C

Chemical resistance : Fosroc technical sales department should be consulted for specific recommendations to meet each operating condition.

Test results with some common chemicals using Nitocote ET401 films totally immersed for 1 year at 20°C.

Water	:	Excellent
Oils, Vegetables and Mineral	:	Excellent
Phosphoric acid 10%	:	Very good
0.880 Ammonia	:	Excellent
Ferric chloride	:	Excellent
Sea Water	:	Excellent
Hydrochloric acid 10%	:	Excellent
Sodium Hydroxide 25%	:	Excellent
Sulphuric acid 10%	:	Excellent
Nitric acid 10%	:	Good

Where chemicals at higher temperatures than 20°C are involved, please consult our technical department.

Physical properties

Test results after curing for 7 days in air at 20°C. Tested in accordance with BS.2782-301J.

Tensile strength	9.4 N/mm ²
Elongation at Break	31%

Application instructions

Preparation

All surfaces to be treated with Nitocote ET401 must be clean and free from dust or loose material.

Nitocote® ET401

Concrete surfaces :

All laitence must be removed by grit blasting.

Following the preparation of a concrete surface, care should be taken to ensure that any blow holes which have appeared in the surface are filled by Nitocote ET401. If large numbers of holes have appeared, then it may be necessary to render the surface or use a glass fibre reinforcement in the Nitocote ET401 application. Alternatively Nitoprime filler no.2 should be used as a fairing coat to provide a smooth surface. (See separate data sheet).

Steel surface :

Should be shot blasted to bright metal.

Priming

Concrete : All concrete surfaces should be primed using Nitoprime 25. This is a two pack epoxy resin primer supplied in pre-weighed quantities ready for mixing. It is mixed in the proportions supplied and brushed in a thin continuous film over the concrete surface. The primer should be allowed to cure overnight at 15 deg.C to 20 deg.C before applying the Nitocote ET401.

The usable life after mixing is 60 - 80 minutes at 20 deg.C.

Metal :

All metal surfaces should be primed immediately after preparation using Nitoprime EP203. (See separate data sheet).

Coating

Mixing

The entire contents of the hardener can should be poured into the resin container and the two materials mixed thoroughly until a uniform consistency is obtained.

It is recommended that mechanical mixing be employed, using a stirrer in a heavy duty slow speed electric drill.

Application

Stiff nylon brushes are recommended for the application of Nitocote ET401. Once mixed, the material should be immediately brush applied to the primed surface ensuring a continuous coating of uniform thickness is obtained.

The primed surface must be moisture free before the Nitocote ET401 is applied.

Use of glass fibre reinforcement:

Nitocote ET401 may be used in conjunction with glass fibre mat to increase thickness or where it is necessary to bridge fine cracks in the substrate. The mat should be laid directly onto the first coat whilst it is still wet and should be pressed in and smoothed out with a stiff nylon brush or split washer roller. Second and subsequent coats may then be applied as necessary, allowing 12 to 18 hours between each coat.

Nitocote® ET401

Repairing and overcoating

Areas which have been previously coated with Nitocote ET401 and which have been damaged can be readily overcoated. The existing Nitocote ET401 surface must be well abraded, using a stiffwire brush or medium/coarse wet applied abrasive paper, to ensure a good bond is achieved. Overcoating may then be carried out as for new work, always ensuring that the substrate is moisture free.

Cleaning

Tools and equipment should be cleaned with Fosroc solvent 102 immediately after use.

Precautions

Health & Safety

Wear suitable protective clothing, gloves and eye/face protection. Barrier creams such as Kerodex 71, Rozalex 9, Debba-Wet work or similar, provide additional skin protection. If contact with the resin occurs, it must be removed before it hardens with a resin removing cream such as Kerocleanse 22 or Rozalex 42 followed by washing with soap and water. DO NOT USE SOLVENT. In case of contact with eyes rinse immediately with plenty of water and seek medical treatment immediately. Ensure good ventilation and do not smoke during use.

For further information see material safety data sheet.

Fire

Nitocote ET401, Nitoprime EP203, Nitoprime 25 and Fosroc Solvent 102 are flammable. Do not use near a naked flame.

Flash points

Nitocote ET401	35°C
Nitoprime EP203	27°C
Nitoprime 25	39°C
Fosroc Solvent 102	33°C

Note

Although Nitocote ET401 may be applied at temperatures down to 5 deg.C, the curing time increases significantly in the lower ranges. For cold weather working it is recommended that materials are stored in a heated building and only removed immediately before use. Accelerated heating methods must not be used.

Nitocote ET401 should only be applied under dry conditions and where the coating can be protected from contact with water for the first 24 hours.

Storage

Shelf life

6 months if stored at 10°C to 20°C

Packaging and coverage

Nitocote ET401	4.6 kg	4 m ² / litre
----------------	--------	--------------------------

Technical service

The company provides a technical advisory service supported by a team of specialists in the field.

Additional information

Fosroc produce a range of materials to give chemical resistant and decorative finishes.



Nitocote® ET401

® Denotes the trademark of Fosroc International Limited

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



Fosroc Chemicals (India) Pvt. Ltd.

Head Office

111/3, Hafeeza Chamber II Floor,
K H Road, PBNo. 2744, Bangalore 560027
www.fosroc.com

telephone	fax	e-mail
++91 80-22240018/120	++91 80-22233474	india@fosroc.com



Regional Offices

Bangalore

Shankar House, IV Floor
1 & 18, RMV Extension
Bangalore 560 080
Ph:080-2361 3161/2361 2004
Fax : 080-2361 7454
email: Bangalore@fosroc.com

Mumbai

208/209, Persepolis
Sector 17, Vashi
Navi Mumbai 400 703
Ph:022-2789 6412/14
Fax: 022 - 2789 6413
email:Mumbai@fosroc.com

Delhi

First floor,1/2 East Patel Nagar
Opp: Vivek Cinema, Main Patel Rd
New Delhi 110 008
Ph:011-25884903/4
Fax: 011- 25884422
email:Delhi@fosroc.com

Kolkata

P-569, Lake Terrace Extn.
First Floor
Kolkata 700 029
Ph: 033 24650917 / 55343188
Fax: 033-24650891
email:Kolkata@fosroc.com

- Ahmedabad : (079) 26762799 ● Ankleshwar :(02646) 220704/224687 ● Bhubaneswar : (0674) 2546415 ● Chennai (044) 24899949/24853383
- Chandigarh : (0172) 2639360 ● Cochin : (0484) 2356668 ● Coimbatore : (0422) 2472966 ● Goa : (0832) 2542465 ● Guwahati (0361) 2548793
- Hyderabad : (040) 27662324/27662425 ● Hubli (0836) 09343402597 ● Indore : (0731) 504339/5061477 ● Jaipur : (0141) 2235349
- Jamshedpur: (0657) 2223848 ● Lucknow :(0522) 2239044 ● Nagercoil 09842134873 ● Visakhapatnam : (0891) 2564850 / 2707607

INDIA/2005/0714/C